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Normative Influence and Rational Conflict Decisions: Group Norms and Cost-Benefit Analyses for Intergroup Behavior

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The present paper articulates a model in which ingroup and outgroup norms inform 'rational' decision-making (cost-benefit analysis) for conflict behaviors. Norms influence perceptions of the consequences of the behavior, and individuals may thus strategically conform to or violate norms in order to acquire benefits and avoid costs. Two studies demonstrate these processes in the context of conflict in Québec. In the first study, Anglophones' perceptions of Francophone and Anglophone norms for pro-English behaviors predicted evaluations of the benefits and costs of the behaviors, and these cost-benefit evaluations in turn mediated the norm-intention links for both group norms. In the second study, a manipulated focus on supportive versus hostile ingroup and outgroup norms also predicted cost-benefit evaluations, which mediated the norm-intention relationships. The studies support a model of strategic conflict choices in which group norms inform, rather than suppress, rational expectancy-value processes. Implications for theories of decision-making and normative influence are discussed.

KEYWORDS cost-benefit analyses, expectancy-value processes, group processes, intergroup conflict, norms, rational choice

WHEN individuals identify as group members rather than as unique individuals, they are motivated to engage in pro-group action and to conform to ingroup norms (Tajfel & Turner, 1979; Turner, Wetherell, & Hogg, 1989). The relationship between pro-group conflict choices,

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such as decisions to engage in collective action, and individuals' evaluations of the costs and benefits of these actions for themselves personally has been the subject of much debate. Many theorists have argued that individual-level incentives are a primary motivation for participation in collective action (e.g. Olson, 1968). Recent research however suggests that activists' conflict choices may be predicted by group-level factors independent of individual-level costs and benefits (e.g. Kelly, 1993; Simon et al., 1998). In particular, intergroup research has repeatedly demonstrated non-instrumental conformity to ingroup norms, based on self-stereotyping and esteem-enhancement processes (see e.g. Terry & Hogg, 1996).

It is argued here that in the context of intergroup conflict, group norms may also influence decision-making because they define the means to acquire benefits and to avoid costs. A model of *agentic normative influence* is presented which predicts cost-benefit evaluations for conflict choices from group norms. In this model, cost-benefit evaluations are proposed to mediate the relationship between group norms and individuals' behavioral intentions. If group norms and cost-benefit perceptions are evaluated as independent predictors of pro-group choices, it is proposed, the role of group norms is underestimated because cost-benefit perceptions may themselves be predicted by norms. Mediational analyses will then reveal that for conflict behaviors cost-benefit analyses play a role in individuals' strategic reactions to group norms. We argue that not only ingroup norms, but also outgroup norms, may be implicated in this 'rational' normative influence. Thus, the present paper attempts to address two still-contested theoretical positions: that cost-benefit calculations may be normative; and that outgroup norms may be influential in intergroup decision-making.

Norms in decision-making

Classic research in conformity confirms the strong impact of norms on individuals' behavior, not only in cases of high judgmental

uncertainty (Sherif, 1936), but even when conformity means ignoring strong perceptual cues (Asch, 1956), or performing ostensibly life-threatening actions (Milgram, 1974). Norms at the individual, interpersonal, and intergroup levels have been argued to influence decision-making. Needs to be authentic, or to affirm moral commitments, are thought to motivate individuals to act out personal or *moral norms* (Gorsuch & Ortberg, 1983; in politics, Gecas, 2000). Individuals' need for approval from significant others motivates conformity to interpersonal norms (Ajzen, 1991; Fishbein & Ajzen, 1975; in political behavior, Klandermans, 1984). At the group level, *referent group norms* are thought to define individuals' behavioral repertoires as a function of salient identities, influencing decision-making via self-stereotyping processes (Terry & Hogg, 1996; in politics, Kelly, 1993; Simon et al., 1998).

Psychological research has tended to study conformity to group norms in the context of destructive (e.g. Milgram, 1965), incorrect (e.g. Asch, 1956) or arbitrary (e.g. Sherif, 1936) behaviors (Turner et al., 1989; see also Kelly, 1993; Simon et al., 1998). Perhaps for this reason, conformity is often presented as a process that overrides rationality, causing individuals to engage in personally costly actions in the service of authenticity, or interpersonal or group affiliation. However, group norms have also been shown to motivate deliberative processes (e.g. Abrams, 1994; Mackie, Gastardo-Conaco, & Skelly, 1992; Mackie & Queller, 2000; Moscovici, 1985): when the behavior is ingroup normative, individuals may systematically assess, rather than automatically endorse, the consequences of the actions. Similarly, decision-making research demonstrates that beliefs about the costs and benefits of behaviors may be correlated with perceived norms, rather than independent of them (e.g. Vallerand, Deshaies, Cuerrier, Pelletier, & Mongeau, 1992; see Liska, 1984; Miniard & Cohen, 1981). Interactive and mediational models of normative influence and cost-benefit evaluations are not typically assessed, however, because dominant decision-making models for individual decision-making (Ajzen, 1991), intergroup decisions

(Turner et al., 1989), and social movement participation (Klandermans, 1984) propose independent paths.

Indeed, conformity to ingroup norms may be motivating to individuals for many reasons articulated in previous theories that are independent of cost-benefit evaluations of the behavior. For example, ingroup norms may motivate conformity through self-stereotyping, as in *referent informational influence* (Terry & Hogg, 1996); through a need for approval from significant others, as in the theory of planned behavior's *subjective normative influence* (Ajzen, 1986); or through the moral imperative created by internalized personal or *moral norms* (Gecas, 2000). In these processes, performing the behavior intrinsically satisfies the motivation. In intergroup conflict, however, an additional process must surely also operate: conformity to ingroup norms coordinates group members to advance ingroup interest in the ongoing interaction. Thus performing the ingroup normative behavior generates additional benefits for the group and thus the individual group member, whereas violation of ingroup norms generates additional costs for the group and thus the individual members of the group (Abrams, 1994; Turner et al., 1989).

In intergroup contexts, individuals may perform expectancy-value calculations (see Feather, 1982) at a group level of analysis as well as an individual analysis, estimating the likelihood (expectancy) and importance (value) of the costs and benefits that will accrue to the group if particular behaviors are performed (see Louis & Taylor, 2002; Louis, Taylor, & Neil, 2005; Turner et al., 1989). The present research, however, focuses on the derivation of individual-level cost-benefit analyses from group norms, proposing that in conflict choices group norms contribute to the definition of individuals' self-interest, rather than overriding it or operating in parallel. Testing a model of *agentic normative influence* in which group norms predict individuals' cost-benefit analyses and these analyses, in turn, significantly mediate the norm-intention relationship, is the first goal of the present research.

The relevance of outgroup norms?

Outgroups, that is groups to which individual actors do not belong, or with whom individuals do not identify, do not generally trigger needs for approval, for affirmation, or understanding (Turner et al., 1989). Outgroup norms have been observed to influence behavior only when backed by rewards and punishments, and compliance with coercive outgroup normative influence is limited to outgroups with both power and surveillance ability (see e.g. Reicher & Levine, 1994). In the absence of coercive surveillance, then, outgroup norms are theoretically irrelevant to individuals' decision-making. For example, safe sex behavior may be guided by perceptions of what is appropriate for individuals' peer groups, or what significant others want, or what students personally believe to be morally appropriate; knowing that an outgroup (e.g. the Roman Catholic Church) frowns on the use of condoms may simply have no impact (see e.g. Mackie et al., 1992; Terry & Hogg, 1996).

For intergroup behavior, in contrast, it is argued here that outgroup norms should influence decision-making. *Coercive normative influence* is relevant to many intergroup decisions, particularly for low power groups who may be exposed to surveillance and the threat of reprisals if the status hierarchy is challenged. However, even without surveillance abilities to create coercion outgroups may exert *agentic normative influence*, because outgroup reactions themselves constitute important consequences or targets of action in intergroup conflict. In conflict decisions, individuals may strategically conform to or violate outgroup norms because this conformity or violation is seen as helpful to the group, with implications for the individual group member.

Consistent with this argument, the expected behavior of outgroup members has been shown to influence intergroup behavior in many contexts. For example, anticipated discrimination on the part of the outgroup may produce retaliatory discrimination from equal or high power groups (e.g. Blanz, Mummendey, & Otten, 1995), and egalitarian or appeasement

behaviors from low power groups (e.g. Ng, 1982). Anticipated outgroup behavior defines the consequences of inaction: if the ingroup does not act, the outgroup has the initiative, which is an essential strategic consideration (see e.g. L. Gaertner & Insko, 2000). For example, escalating violence in field studies has been associated with the perception of intransigent outgroup determination to maintain the status quo in Israel (Rouhana & Bar-Tal, 1998) and in Ireland (Cairns & Darby, 1998). At the most serious level, belief in the threatening intentions of the outgroup has been observed to be a critical process in the escalation of intergroup violence, including riots (Drury & Reicher, 2000; Reicher, 1984) and genocide (Staub, 2001). Anticipated or past outgroup behavior, in short, motivates behavior to change or defend against outgroup actions. Importantly, because attributions regarding intention moderate the link between outgroup past behavior and inferences for future behavior, perceptions of outgroup norms are critical in order for outgroup behavior to motivate ingroup action. If the outgroup behavior is outgroup normative, it may be perceived as intentional and likely to be repeated (see Hunter, Stringer, & Watson, 1991). Thus, a terrorist act attributed to the situation ('War inevitably produces atrocities') or seen as outgroup antinormative ('Most guerrillas abhor terrorism') may have a far different effect in defining the consequences of inaction than a behavior seen as outgroup normative ('These guerrillas endorse terrorism').

Ingroup members respond to the anticipated behavior of the outgroup if ingroup members do nothing, but they also react to the anticipated responses of the outgroup to their own action. That is, an analysis of intergroup decision-making must model the effects of ingroup and outgroup norms on evaluations of the consequences of conflict choices, from inaction to conciliatory or confrontational action (see also, Louis & Taylor, 2002; Louis et al., 2005). For example, if the outgroup is known to oppose sit-ins but tolerate peaceful demonstrations, at least two effects of that knowledge might be expected. Strategic conformity to the outgroup

norm—by demonstrating peacefully, in the current example—might be seen to benefit the group because it will elicit positive reactions from the outgroup: perceived normative similarity might (1) reduce symbolic threat and therefore defensive behavior (Rokeach, 1960; see also De Ridder & Tripathi, 1992); (2) make salient a shared superordinate identity (see S. L. Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993) that delegitimizes the subgroups' horizontal conflict behavior; and/or (3) signal willingness to cooperate for mutual gain, triggering reciprocity dynamics (Osgood, 1962) and reducing 'realistic' conflict (Sherif, 1966). Alternatively, strategic violation of outgroup norms—engaging in a sit-in—may be seen as beneficial if the action increases the costs of maintaining an unfavorable status quo for the advantaged group, motivating attention or concessions (Dalton, 1988; Gurr, 1970; Tilly, 1975). For example, some research in political science has suggested that violent riots may be particularly effective in attracting ameliorative government funding (Piven & Cloward, 1977), although others have challenged this analysis (see e.g. Burstein & Freudenberg, 1978). These empirical results of intergroup conflict research suggest that a theoretical model of conflict decisions should do more than consider group processes of normative influence and cost-benefit analyses independently. The model should include the normative aspects of instrumental decision-making, and the instrumental aspects of normative influence. If group members react dynamically to anticipated behaviors of the outgroup, explicitly modeling the effects of ingroup and outgroup norms on actors' cost-benefit calculations will be useful in understanding and predicting actions in conflict.

Agentic normative influence

Group norms exert agentic influence, we propose, when they define the consequences of intergroup behaviors: the means by which groups achieve benefits or avoid costs. Group norms are understood as strategic, influencing active decision-makers as they choose among

intergroup behaviors which vary in their consequences for self and group. *Agentic normative influence* may be contrasted with other commonly studied normative influence processes on three dimensions: the level of analysis, the degree of deliberation, and the motivation for conformity.

In conflict, agentic norms are measured at the group level of analysis. This is similar to referent group norms (e.g. Terry & Hogg, 1996), but in contrast to the individual level tapped with measures of significant others' interpersonal norms (e.g. Ajzen, 1991) or personal moral norms (e.g. Gecas, 2000). Group conflict is likely to make social identities contextually salient, so that group-level variables play a primary role in decision-making (Tajfel & Turner, 1979; Turner et al., 1989). Whereas in social identity models ingroup sources alone exert referent group influence, however, we propose here that outgroup as well as ingroup norms can exert agentic influence.

Agentic influence for conflict choices operates via deliberative cost-benefit analyses (expectancy-value processes). This is similar to the 'social incentives' of the Klandermans (1984) social movement model, but in contrast to self-stereotyping or internalized self-affirmation in the referent informational influence model (Terry & Hogg, 1996). The agentic model seeks to integrate decision-making theories of rational choice and of intergroup social influence by hypothesizing that one process by which groups exert influence in conflict is by shaping members' instrumental perceptions of the costs and benefits of behavior (see also Louis et al., 2005).

Finally, agentic norms are injunctive, not descriptive; they are prescriptive, not behavioral (Cialdini, Kallgren, & Reno, 1991). Agentic norms, like subjective norms (e.g. Ajzen, 1991), tap expected source approval or disapproval, in contrast to norms that tap what the source will do themselves, like referent group norms. Referent informational influence suggests that if union members perceive a descriptive norm that strikes are what prototypical union members do in conflict situations, the union members will be more likely to strike.

They will not be influenced by the outgroup referent norm—the perception of whether or not managers strike. In agentic normative influence, it is expected that union members will be responsive to managers' (as well as unions') injunctive norms for striking, because tactics in unfolding conflict interactions must be evaluated with an eye to the perceptions of the conflict partner/opponent. It is both intuitively compelling and (as discussed above) consistent with past research to argue that union members' perception that managers (as well as the union) think the union ought or ought not to strike will change the perceived benefits and costs of striking, and thus drive behavior.

Empirically, the agentic normative influence model may improve the power of models of decision-making in conflict by drawing attention to relevant outgroup norms (which could be overlooked in predictive models that assume that outgroups are irrelevant). But the primary goal of the present paper is to model the mediating process whereby ingroup and outgroup injunctive norms influence behavior via cost-benefit perceptions explicitly. If this mediation occurs and models such as the theory of planned behavior (Ajzen, 1991) or the selective incentives model (Klandermans, 1984) are applied to conflict choices, the effect will be to underrate the normative influence that is represented in the decision-making model. This is because the instrumental cost-benefit analyses for the behavior and behavioral attitudes will be understood as 'independent' predictors, whereas if agentic normative influence is occurring, cost-benefit analyses mediate indirect normative influence (see also, Liska, 1984; Miniard & Cohen, 1981). If agentic processes occur and typical intergroup conflict models are applied, measuring norms and behavior but not cost-benefit perceptions for the actor, the effect is to overlook the extent of 'rational' decision-making and the mediating role that can be played by cost-benefit perceptions. Thus, assessing agentic influence processes may allow researchers to study the interplay of rational decision-making and group norms—a contentious and important topic, both socially and theoretically. In the present paper, two studies

analyze agentic influence processes in the context of English–French relations in Québec.

Study 1

The population of Québec is predominantly Francophone, and coexists uneasily in federation with 12 predominantly Anglophone provinces and territories. Since the 1960s, Francophone rights have become a dominant political issue within Québec and a ‘sovereignist’ movement has championed the political independence of Québec (see e.g. Linteau, Durocher, Robert, & Ricard, 1991). The sovereignist movement draws its support largely from Francophone Québécois and is opposed by a federalist movement supported by a majority of Anglophone Québécois as well as a minority of Francophones (e.g. Maclure, 2000).

In the first study, young Anglophone participants’ intentions to use English in consumer contexts, and their cost-benefit evaluations of these behaviors, were assessed as a function of Anglophone and Francophone norms. Young Anglophone Québécois speak French relatively fluently, and provincial legislation mandates that French should be the language of commerce and work in Québec. Accordingly, using English in consumer contexts is not merely a matter of necessity or convenience: it is also a controversial intergroup behavior (see Chevrier, 1997; O’Malley & Bowman, 2001). In the present study, we hypothesized in accordance with the social identity approach that ingroup norms would be associated with (1) higher intentions to engage in the behaviors and (2) more favorable cost-benefit evaluations of the consequences of the behavior for the actor. In line with past research concerning the dynamic impact of anticipated outgroup reactions, outgroup norms for conflict behaviors were also expected to be associated (3) with intentions and (4) with cost-benefit evaluations. Finally, in accordance with the agentic influence model, (5) cost-benefit evaluations were predicted to mediate the relationship between norms and intentions, demonstrating a process by which decision-making at the individual level may be rationally informed by distal group-level factors.

Method

Participants Participants were required to self-identify as Anglophone Québécois, and to be born in Québec or to have lived in the province for at least 10 years. Seventeen of the 224 recruited were excluded on these grounds; of the remaining sample ($N = 207$), women were slightly in the majority ($n = 118$, 57%) and participants were predominantly federalist ($n = 172$, 83%), with minorities who were neutral ($n = 23$, 11%), undecided ($n = 10$, 5%), or sovereignist ($n = 1$, 1%).

Procedure Participants were recruited from two English-language universities in Montréal, Canada for a study on Anglophone Québécois’ responses to the language situation in Québec. Those who were eligible to complete the 20-minute study were given consent forms, tickets for two lotteries of C\$100 (which were awarded at the completion of the recruiting), and questionnaire booklets. After completing the questionnaire, participants were thanked and debriefed verbally and in writing.

Materials

Introduction Under the title ‘psychology questionnaire’ participants read: ‘In the Province of Québec, ethnicity strongly influences behavior in everyday life. Language tensions between Anglophones and Francophones provoke, among different ethnic groups, differing reactions. For example, Francophone Québécois might respond to the situation by calling for more dialogue, or by involving themselves in language protection groups. A wide variety of reactions are also available to Anglophone Québécois. We have designed this questionnaire to determine how you yourself will act in response to the language situation in Québec’.

Demographics An initial demographics section of the questionnaire included written reiterations of the screening questions, questions regarding political affiliation, and French-language skills. As expected, all participants indicated that they could both understand and speak French, although two participants indicated they could read but not write in French.

Social identification Identification as Anglophones was assessed with a scale adapted from Porter (1995). Three items measured importance of the Anglophone identity, commitment to expressing the identity, and perception of community on 11-point scales from 0 ('Not at all') to 10 ('Extremely'), $\alpha = .87$.

Behavior evaluations Participants rated five pro-English behaviors involving the use of English in commercial contexts: demanding that business correspondence be in English, not shopping at a store because of monolingual French signs, avoiding certain stores because of being rudely treated as an Anglo, responding in English to a store clerk who addressed you in French, and openly using English in French work environments.

Participants' evaluation of the Anglophone and Francophone *group norms* were established by two questions for each of the five behaviors. The 11-point items were adapted from Ajzen (1991) (e.g. 'How would Francophones/other Anglophones react to a person who did this behavior?'; -5 (intensely negatively) to +5 (intensely positively)).¹ Scales were created for Anglophone norm, $\alpha = .80$, and Francophone norm, $\alpha = .75$, by averaging across the five behaviors.

Cost-benefit evaluations regarding the consequences of the behavior were assessed on bipolar measures 'What is the effect of this behavior on the individual actor?', from -5

('very negative: costs overwhelmingly outweigh benefits') to +5 ('very positive: benefits overwhelmingly outweigh costs'). Cost-benefit scores were created by averaging across the five behaviors, $\alpha = .64$.

Finally, participants completed a measure of *intentions* to engage in each of the five options: 'When the situation comes up, I react this way ____% of the time' (0, 'Never' to 100, 'Always'). By averaging across the five behaviors, a scale for intentions was created, $\alpha = .77$.

Results

Following Baron and Kenny (1986), the model was tested by predicting intentions from norms (the distal independent variables); predicting the mediator (cost-benefit evaluations) from norms; and using the Sobel test to evaluate the significance of the change in coefficients for norms when the cost-benefit analyses were entered in the hierarchical linear regression. Means, standard deviations, and intercorrelations are presented in Table 1. Two multivariate outliers identified on the basis of Mahalanobis distance were deleted.

Group norms predict intentions Anglophone (ingroup) and Francophone (outgroup) norms and expectancy-value scores were included as centered continuous predictors of intentions to engage in pro-English consumer behaviors (see Table 2). Group norms were significantly associated with intentions (*adj. R*² = .10, *F*(2, 193) =

Table 1. Means, standard deviations (SDs), and intercorrelations for group norms, cost-benefit evaluations, and intentions

Variables	1	2	3	4
1. Anglophone norm	1.32 (1.42)			
2. Francophone norm	-.17*	-1.71 (1.49)		
3. Individual-level cost-benefit evaluation	.59***	.17*	0.05 (1.47)	
4. Behavioral intention	.26***	.17*	.41***	46.00 (26.04)

*** $p < .001$; ** $p < .01$; * $p < .05$.

Notes: Uncentered means (SD) in diagonal, and zero-order correlations below. Norms and cost-benefit evaluations ranged from +5 to -5. Intentions ranged from 0 to 100.

Table 2. Study 1: Prediction of behavioral intentions as a function of Anglophone and Francophone group norms and cost-benefit evaluations

Block	1	2
Adj. R^2	.10***	.17***
R^2 change	.11***	.07***
Predictor	Standardized coefficients	
Anglophone norm	.30***	.08
Francophone norm	.22**	.12
Cost-benefit evaluations		.35***

* $p < .05$; ** $p < .01$; *** $p < .001$.

12.24, $p = .000$). Perceptions that the behaviors were more ingroup normative were associated with higher intentions ($\beta = .30$, $p = .000$; see Table 2). Independently, higher intentions were associated with perceptions the behavior was *outgroup* normative ($\beta = .22$, $p = .002$).²

Group norms predict cost-benefit evaluations

Group norms were also associated with cost-benefit analyses: Anglophone and Francophone norms together predicted 42% of the adjusted variance in consequences for the individual ($F(2, 195) = 71.98$, $p = .000$). The more that the ingroup was perceived to support a behavior, the more the behaviors were thought to benefit the individual actor ($\beta = .64$, $p = .000$). Behaviors that the outgroup was perceived to support were also given more positive cost-benefit evaluations ($\beta = .27$, $p = .000$). Thus, rather than being independent of social influence processes, cost-benefit evaluations could be predicted from group-level norms.

Cost-benefit evaluations mediate the norm-intention relationships

The mediating role of cost-benefit analyses in ingroup and outgroup norm-intention relationships was then examined. When cost-benefit analyses for the individual actor were entered into the equation the model fit improved significantly ($R^2_{\text{change}} = .07$, $F(1, 192) = 16.49$, $p = .000$) (see Table 2, block 2). Individuals had stronger intentions to engage in behaviors that they perceived would benefit them ($\beta = .30$, $p = .000$). Moreover, the

positive influence of ingroup norms on intentions was fully mediated by individual-level expectancy-value processes, decreasing from $\beta = .30$ to $\beta = .08$ ($z = 3.86$, $p = .000$), as was the influence of outgroup norms, decreasing from $\beta = .22$ to $\beta = .12$ ($z = 3.14$, $p = .001$).

Alternative causal models In the current analyses, the causal path is assumed to flow from norms to behavior, with cost-benefit analyses as a mediator. Since the data are correlational, alternative causal paths are possible, and it is possible that better model fit may be provided by (for example) assuming that behavioral intentions drive norm perceptions, rather than the reverse.³ Table 3 provides fit statistics from path analyses for the present model and three alternative theoretical models: (1) an economic model, in which cost-benefit analyses drive behavior, with norms as a mediator; and two reverse path models in which behavioral intentions drive (2) cost-benefit analyses with norms as a mediator, or (3) norms with cost-benefit analyses as a mediator. Akaike's information criterion (AIC) is especially useful for comparing non-nested models, with the model with the smallest AIC being taken as the better fitting. In the present data, however, all of the measures point in the same direction: fit statistics (GFI, AGFI) are higher and error statistics (RMSEA, AIC) are lower for alternative causal models than for the present model. Although experimental manipulations and longitudinal data would complement the present results, the interpretation that norms are motivating behavior via cost-benefit analyses is supported by the poorer fit of alternative and reverse path causal models.

Summary In the present results, ingroup norms were associated with intentions to engage in pro-group behaviors (hypothesis 1) and more favorable cost-benefit evaluations of the consequences (hypothesis 2). In addition, the results confirm the hypothesized role of outgroup norms, which were associated with intentions (hypothesis 3) and cost-benefit evaluations (hypothesis 4). Finally, cost-benefit evaluations were observed to mediate the

Table 3. Study 1: Fit statistics for the present theoretical model (1) and three alternative path models

Model	Chi-square	GFI	AGFI	RMSEA	AIC
1. Norms → CBA → Beh	5.46*	.99	.87	.15	23.46
2. CBA → Norms → Beh	39.88***	.92	.59	.31	55.88
3. Beh → CBA → Norms	26.50***	.94	.81	.20	40.50
4. Beh → Norms → CBA	26.17***	.94	.71	.24	42.17

* $p < .05$; ** $p < .01$; *** $p < .001$.

Note: GFI = goodness-of-fit index; AGFI = adjusted GFI; RMSEA = AIC = Akaike's information criterion. CBA = cost-benefit analyses; Beh = behavioral intentions.

relationships between norms and intentions (hypothesis 5), providing evidence that decision-making at the individual level may be 'rationally' informed by distal group-level factors.

Discussion

The present results provide support for the contentions that normative influence can be deliberative, expectancy-value processes may be normative, and that outgroup norms may be influential in intergroup decision-making. Specifically, in the present results, Anglophone support for intergroup behaviors predicted intentions and cost-benefit calculations, consistent with a social identity model (e.g. Terry & Hogg, 1996) although inconsistent with a strict distinction between norms and cost-benefit analyses (e.g. Azjen, 1991; Klandermans, 1984). Thus, perceptions of what benefited the actor were informed by ingroup norms, and these cost-benefit evaluations mediated the ingroup norm-intention relationships. In addition, outgroup norms were associated with more favorable cost-benefit evaluations of intergroup behaviors, as well as stronger intentions to engage in the behaviors. These normative cost-benefit evaluations mediated the outgroup norm-intention relationship. Not only ingroup norms, then, but also outgroup norms, may influence decisions in intergroup conflict by guiding strategic expectancy-value processes: a process of *agentic normative influence*.

The present study, however, is open to criticism on several methodological grounds. Importantly, group norms were measured correlationally for the same common set of

behaviors, leaving the causal path open to question. Reverse causal models produce worse fit statistics, in the present results, than a model whereby norms drive behavior via cost-benefit analyses. However, it seems likely that the relationship between norms and cost-benefit perceptions can be a feedback loop in some circumstances: where it is difficult to obtain feedback about other peoples' views and actions, benefits to the individual may motivate intentions and independently motivate participants to see behaviors as descriptively and prescriptively normative ('everyone does what I do', a false consensus effect: Miller & Prentice, 1994; 'everyone thinks what's good for me is morally right', a legitimizing myth; Chen & Tyler, 2001). Conflict contexts, which are characterized by repeated, consequential interactions with ingroup and outgroup members, may both motivate and inform accurate perceptions of ingroup and outgroup norms, increasing the effects of perceived norms on cost-benefit analyses and reducing the feedback from benefits or costs to norm perceptions (Louis & Taylor, 2002). However, in the present study, the two effects are not disentangled. The independent variables are highly intercorrelated (see Table 1), and all participants are judging the same behaviors as more or less normative. If indeed there are empirical Anglophone and Francophone norms for the behaviors, the variation in norm perceptions implies (motivated?) inaccuracy in at least some participants, inflating the relationships among measured variables.

Conversely, the power of the study would have been weakened by the restricted range of

the norm measures, in that all of the behaviors involved the use of English in commercial/consumer contexts, and were evaluated by participants on average as ingroup normative ($M = 1.32$) and outgroup antinormative ($M = -1.71$; see Table 1). A more powerful analysis would contrast ingroup and outgroup normative and antinormative behaviors. Depressed estimates of the relationship could also have been produced by the modest reliability for the critical mediator, cost-benefit evaluations ($\alpha = .64$). The total variance accounted for in intentions in the final model was in fact quite low (*adj. R^2* = .17; Table 2). Thus, although each of the predicted norm-evaluation-intention relationships was significant, a more powerful test of the model is desirable. In addition, although the use of English in consumer contexts is politically controversial and (as the results suggest) informed by consideration of intergroup norms and consequences, extension of the focus to an explicitly political context may be more compelling to political and intergroup psychologists. These issues were addressed in a second study.

Study 2

In Study 2, Anglophone participants generated and evaluated a range of intergroup behaviors as a function of an experimental focus on supportive or hostile ingroup and outgroup norms. Specifically, participants were asked to generate and evaluate lists of behaviors that Anglophones and Francophones would either support or oppose. As in Study 1, it was hypothesized that (1) ingroup norms for conflict behaviors would predict intentions and (2) expectancy-value processes for the individual actors; that outgroup norms would also predict (3) intentions and expectancy-value processes; and that (4) expectancy-value processes would mediate the relationship between norms and intentions, replicating the *agentic normative influence* process in which decision-making at the individual level is 'rationally' informed by distal group-level factors.

Method

Participants As in Study 1, participants were required to self-identify as Anglophone, and to be born in Québec or to have lived in the province for at least 10 years. Of 101 participants completing the study, 10 were excluded on these grounds. Ages for the 91 participants remaining ranged from 18 to 29 with a mean of 20; most were women ($n = 70$, 78%). Politically, most of the participants were federalists ($n = 76$, 84%) with 12 'neutral' participants (13%) and three 'undecided' (3%).

Procedure Forty students participated for course credit in lower-level psychology courses, choosing from over 20 available experiments. The remaining 51 participants were compensated with C\$8 for their time; these had been recruited from undergraduate courses at the beginning of the term after signing up for a 'paid psychology subject pool'. During the 45-minute session, participants first completed a consent form and a 'demographic information' questionnaire, in which their identity as Anglophone Québécois was checked. Using stratified random number table, participants were then assigned to one of four conditions, Anglophone norm support/opposition by Francophone norm support/opposition. Participants completed the behavior generation task and the behavioral evaluation measures, were debriefed verbally, given a written description of the rationale, and thanked for their participation.

Materials

Anglophone identity Participants first self-identified as Anglophone (in comparison to Francophone, or 'Other'); then, identification as Anglophones was assessed with a 5-item scale adapted from Porter (1995). The measures (e.g. 'How much do you feel a part of a larger group/community of people who share this identity?') were completed on 11-point scales from 0 ('Not at all') to 10 ('Extremely') and were averaged to form an index of identification, $\alpha = .73$.

Norm manipulation and behavior generations The study comprised a 2 (Francophone normative/

antinormative) \times 2 (Anglophone normative/antinormative) between-subject design. Ingroup or outgroup normative behaviors were defined as behaviors that most group members approved of or supported, whereas antinormative behaviors were defined as behaviors that most group members disapproved of or opposed. Participants read a description of the task which began:

Whenever two groups are in conflict, group members have to make decisions about how they are going to act. Sometimes people find actions that both groups approve of. For example, in a union-management context, both groups might agree to have *contract negotiations*. Sometimes people use behaviors that one group approves of and the other disapproves of. For example, a *strike* might be called by the union, but disapproved of by management, whereas *strike-breaking* might be something that the union disapproves of, and the management is promoting. Finally, there are behaviors that both groups disapprove of. In a labor context, for example, both groups might disapprove of *property destruction*.

When Anglophones and Francophones interact in Québec, there are many ways that Anglos can try to advance their own status or that of their group. We are going to ask you to list behaviors that help Anglophones advance either their own individual interests or those of Anglophones as a whole, that most Francophones *and* most Anglophones approve of [that most Francophones *and* most Anglophones disapprove of/that most Anglophones approve of, but that most Francophones disapprove of/that most Anglophones disapprove of, but that most Francophones approve of].

When the participant signalled to the experimenter that the instructions had been read, a sheet was provided repeating the information characterizing the norm condition and the participant was given 15 minutes to generate five behaviors that fit the criteria.

Behavior evaluations Participants were then provided with a booklet in which they evaluated the first three behaviors they had generated. We did not perform a qualitative analysis *per se* for these behaviors, but the modal responses in each condition could be classified as: violent acts, pro-Anglophone graffiti/vandalism of French signs, racist insults (ingroup and outgroup antinormative); assimilation to French at

work, assimilation to French at school, supporting separatism (ingroup antinormative, outgroup normative); English at work, English at school, bilingual signs⁴ (ingroup normative, outgroup antinormative); and bilingualism in education, bilingualism at work, friendliness and politeness (ingroup and outgroup normative).

Group norms regarding the behaviors were established by two sets of three questions each adapted from Ajzen (1991), e.g. 'How would Francophones/Anglophones react to a person who did this behavior?' Responses were on 11-point Likert type scales ranging from -5 (antinormative) to zero (neutral) to +5 (normative). Scales were created for Anglophone norm, $\alpha = .96$, and Francophone norm, $\alpha = .94$, by averaging across the three behaviors.

Individual expectancy-value processes were assessed with four separate measures of the subjective probability and value of benefits and costs to the actor. For example, participants were asked 'What is the probability that you as the individual actor will benefit if this behavior is performed?' and 'How important do you think that the probable costs are, for you as the individual actor, if this behavior is performed?'. In each case the scales were unipolar measures, from 0 (Unimportant/Zero probability) to 10 (Extremely important) or 100 (Certainty). Weighted bipolar expectancy-value scores were created by multiplying expectancy and value, subtracting costs from benefits, and rescaling to a 21-point scale (from +10, certain and important benefits only to -10, certain and important costs only). Expectancy-value scores were averaged across the behaviors, $\alpha = .72$.

Two measures of *intentions* were included, namely 'When the situation comes up, what percent of the time do you react with this behavior?' and 'How likely is it that you would engage in this behavior?' (0, 'Never' to 100, 'Always'). These items were averaged for each behavior, and intentions for the three behaviors were combined, $\alpha = .88$.

Results

Manipulation check A 2 Anglophone norm condition (Support/Opposition) \times 2 Francophone norm condition (Support/Opposition)

× 2 target group norm (perceived Anglophone/Francophone norm) mixed-model analysis of variance was performed on rated group norms for the behaviors. As expected, interactions were observed between Anglophone norm condition and target group norm ($F(1, 87) = 90.88, p = .000, \eta^2 = .51$), and between Francophone norm condition and target group norm ($F(1, 87) = 127.18, p = .000, \eta^2 = .59$), while the three-way interaction was not significant ($F(1, 87) = 1.25, p = .267, \eta^2 = .01$). Post hoc tests revealed that Anglophones were perceived to evaluate the behaviors generated in the Anglophone support condition more favorably ($M = 2.52$) than in the Anglophone opposition condition ($M = -2.11, p = .000$), and Francophones were perceived to evaluate the behaviors more favorably in the Francophone support condition ($M = 2.23$) than in the Francophone opposition condition ($M = -2.52, p = .000$). The manipulated norm conditions were accordingly used as variables in subsequent analyses.

Design As in Study 1, hierarchical regression analyses were conducted on mean behavioral intentions (the dependent variable), and participants' expectancy-value scores (potential mediators) to test the hypothesis that ingroup and outgroup norms would predict cost-benefit evaluations and intentions, and the cost-benefit evaluations would mediate the norm-intention

links. Means, standard deviations, and intercorrelations for the variables are presented in Table 4. Anglophone (ingroup) and Francophone (outgroup) norm conditions were entered as dichotomous variables (effect codes) scored '+1' (support) or '-1' (opposition).⁵ Continuous expectancy-value scores were centered, and one outlier was excluded.

Group norms predict intentions Anglophone and Francophone group norms predicted 42% of the variance in behavioral intentions ($F(2, 87) = 32.94, p = .000$). Participants had stronger intentions to engage in the actions in the Anglophone support condition ($\beta = .60, p = .000$; see Table 5). However, as in Study 1, outgroup norms predicted intentions independent of the impact of ingroup norms ($\beta = .28, p = .001$).⁶

Group norms predict expectancy-value scores Anglophone and Francophone norm manipulations together predicted 31% of the adjusted variance in rated benefits and costs to the individual ($F(2, 87) = 20.72, p = .000$). Ingroup normative behaviors were thought to benefit the individual actors ($\beta = 0.41, p = .000$), and independently, outgroup (Francophone) norms for the behaviors also positively influenced cost-benefit analyses ($\beta = .40, p = .000$). As in Study 1, calculations of the benefits and costs of intergroup behaviors for the actor were informed by group-level norms.

Table 4. Means, standard deviations (SDs), and intercorrelations for group norms, cost-benefit expectancy-value scores, and intentions

Variables	1	2	3	4
1. Anglophone norm condition	0.04 (1.00)			
2. Francophone norm condition	-.02	0.00 (1.01)		
3. Cost-benefit expectancy-value scores	.40***	.39***	0.19 (3.88)	
4. Behavioural intention	.59***	.27**	.50***	43.65 (30.21)

*** $p < .001$; ** $p < .01$; * $p < .05$.

Notes: Uncentered means (SD) in diagonal, and zero-order correlations below. Norm conditions: +1 = support, -1 = oppose. Cost-benefit scores ranged from +10 (certain, valuable benefits – improbable, unimportant costs) to -10. Behavioral intentions ranged from 0 to 100.

Table 5. Study 2: Prediction of behavioral intentions as a function of Anglophone and Francophone norms and cost-benefit expectancy-value scores

Block	1	2
Adj. R^2	.42***	.44***
R^2 change	.43***	.03*
Predictor	Standardized coefficients	
Anglophone norm	.60***	.51***
Francophone norm	.28**	.19*
Expectancy-value score		.22*

* $p < .05$; ** $p < .01$; *** $p < .001$.

Expectancy-value scores mediate norm-intention relationships The mediating role of expectancy-value processes in the ingroup and outgroup norm-intention relationships was then examined (Table 5, Block 2). When cost-benefit analyses were entered in a regression equation along with norm conditions, model fit significantly improved ($R^2_{\text{change}} = .03$, $F(1, 86) = 5.16$, $p = .026$). Cost-benefit analyses significantly predicted intentions ($\beta = .22$, $p = .026$). Residual direct effects of both ingroup and outgroup norms were observed, when cost-benefit evaluations were entered. However, the expectancy-value processes had significantly mediated the effect of both Anglophone ingroup norms on intentions, which decreased from $\beta = .60$ to $\beta = .51$ ($z = 2.04$, $p = .041$), and Francophone outgroup norms, which decreased from $\beta = .28$ to $\beta = .19$ ($z = 2.03$, $p = .042$).

Alternative causal models As for Study 1, alternative causal models were constructed and evaluated using standard error of the mean.

Table 6 provides fit statistics from path analyses for the present model and the same three alternative theoretical models: cost-benefit analyses drive behavior, with norms as a mediator; behavioral intentions drive cost-benefit analyses with norms as a mediator; or (3) behavioral intentions drive norms with cost-benefit analyses as a mediator. In the present data, as for Study 1, fit statistics (GFI, AGFI) are higher and error statistics (RMSEA, AIC) are lower for alternative causal models than for the present model. Only the present model, in fact, produces adequate fit and error statistics for the data, strengthening the interpretation that norms are motivating behavior via cost-benefit analyses rather than the reverse/alternative paths.

Summary These results replicate the correlational relationships observed in Study 1 using a manipulated focus on supportive or hostile ingroup and outgroup norms. Ingroup support predicted intentions to engage in pro-group behaviors (hypothesis 1) and more favorable cost-benefit evaluations (hypothesis 2). Outgroup norms were also associated with stronger intentions (hypothesis 3) and more favorable cost-benefit evaluations (hypothesis 4). Finally, expectancy-value scores significantly mediated the relationships between norms and intentions (hypothesis 5), although residual direct effects of norms were also observed.

Discussion

In the present study, as in Study 1, ingroup norms for conflict behaviors predicted favorable cost-benefit perceptions and intentions for intergroup behaviors. Behaviors that ingroup

Table 6. Study 2: Fit statistics for the present theoretical model (1) and three alternative path models

Model	Chi-square	GFI	AGFI	RMSEA	AIC
1. Norms \rightarrow CBA \rightarrow Beh	0.04	1.00	.99	.00	18.04
2. CBA \rightarrow Norms \rightarrow Beh	9.34**	.95	.77	.20	25.34
3. Beh \rightarrow CBA \rightarrow Norms	33.99***	.87	.57	.34	47.99
4. Beh \rightarrow Norms \rightarrow CBA	10.13**	.95	.74	.21	26.13

* $p < .05$; ** $p < .01$; *** $p < .001$.

Note: See Table 3 for definitions.

members supported were seen as more beneficial to the individual actor, and these cost-benefit analyses significantly mediated the norm-intention relationships for ingroup norms. The findings suggest that the impact of ingroup norms and cost-benefit evaluations are not necessarily independent, and support a social identity model in which ingroup norms can be important in deliberation and strategic choices (e.g. Abrams, 1994; Terry & Hogg, 1996). However, outgroup norms also influenced cost-benefit analyses, in the present study. Conformity to outgroup norms regarding ingroup members' conflict choices was seen as beneficial, and the influence of outgroup norms on intentions was significantly mediated by evaluations. Thus, outgroup norms predicted the perceived benefits of the behaviors, which in turn predicted intentions to engage in conflict choices. The present study illustrates a process that we call *agentic normative influence* in which both ingroup and outgroup norms inform deliberation for intergroup behaviors.

Regarding the relative strength of the mediation of cost-benefit evaluations in Studies 1 (full) and 2 (partial): it may be the case that the intergroup context was more salient in Study 2 than with the consumer choices of Study 1, triggering processes in which group-level variables motivate intentions independently from cost-benefit evaluations at the individual level (see also, Kelly, 1993; Louis et al., 2005; Klandermans, 1984; Simon et al., 1998). The contingencies that govern the relative importance of agentic normative influence, as mediated by rational cost-benefit calculations, versus other processes of referent or subjective normative influence, seem likely to be a fruitful topic of future research. For the purposes of this paper, however, the results of Study 2 are important in that they provide a replication of the *agentic normative influence* process: in intergroup decision-making, both ingroup and outgroup norms predicted intentions and the evaluation of costs and benefits, and the norm-intention relationships were significantly mediated by these expectancy-value processes.

Limitations It was a goal of Study 2 to provide a stronger test of the agentic model by using a manipulation of focus on supportive or hostile group norms and by accessing a wider range of behavior. Study 1 analyzed correlational variation in norms, cost-benefit analyses, and intentions among a common set of behaviors (which were perceived to be ingroup normative/outgroup anti-normative). However, in Study 2, participants first generated and then evaluated behaviors as a function of ingroup and outgroup approval or disapproval. The norm manipulations successfully induced participants to focus on qualitatively different behaviors—e.g. racist insults vs. bilingualism at work—and it was the randomly assigned norm condition, rather than measured norm perceptions, that was observed in Study 2 to influence intentions both directly and via cost-benefit perceptions. These effects are consistent with a causal role for normative influence, and this interpretation is strengthened by consideration of alternative path models, as described above. Nevertheless, a more stringent test would manipulate group norms for particular behaviors and demonstrate *subsequent* changing cost-benefit perceptions and effects on intentions. Moreover, when participants evaluated the costs and benefits of the behavior for the individual actor, benefits such as the satisfaction of affiliation needs were not ruled out explicitly. Indeed, order effects may have focused respondents' attention on social outcomes for the behaviors, where the norm measures or manipulation preceded measurement of cost-benefit perceptions. A better design would include counterbalanced measures of expressive motivation and agentic motivation and explicitly assess the mediation of ingroup norms and outgroup norms by each. Future research may thus provide a test of agentic normative influence by using longitudinal research to assess the effects of changing norm perceptions on subsequent expectancy-value processes, intentions, and behavior in the field.

General discussion

In two studies, ingroup and outgroup norms for conflict behaviors were positively related to

cost-benefit perceptions and intentions for intergroup behaviors. Behaviors that were supported by the outgroup *or* the ingroup were seen as beneficial for the individual actor, and were more likely to be endorsed by participants. Moreover, the cost-benefit analyses significantly mediated the norm-intention relationships for both ingroup and outgroup norms. This was true when norms were assessed for the same behaviors, in Study 1, and across behaviors, in Study 2. Thus, for Anglophones considering behaviors relevant to intergroup conflict in Québec, Anglophone and Francophone norms are observed to predict rather than suppress rational processes (see also, Mackie et al., 1992).

Two aspects of these results are of theoretical importance. First, the present studies articulate a process whereby group norms in conflict decision-making direct deliberative expectancy-value processes, rather than operating in parallel or in conflict. It should be reiterated that in many contexts, group members may well have motives for conformity to ingroup norms that are independent of cost-benefit calculations. For example, fans can wear team colors to fulfill a need for approval, or to affirm or express a valued identity. Where there are no tactical issues of eliciting desired outgroup responses in ongoing interaction, conformity may be exclusively to ingroup norms and motivated primarily by expressive needs. Thus, many motives to conform may operate in parallel to cost-benefit calculations (as indeed is suggested by residual group norm effects in Study 2; but see also Ajzen, 1991; Fishbein & Ajzen, 1975; in politics, Kelly, 1993; Klandermans, 1984; Simon et al., 1998). However, for many choices in intergroup conflict, norms for groups in conflict may also influence decision-making because they define the means to acquire benefits and to avoid costs. In two studies in the context of English–French relations in Québec, this was apparently the case. Mediation analyses of agentic normative influence processes in other intergroup conflicts may allow the role of group norms in cost-benefit analyses to be better understood and/or predicted.

A second aspect of the present results of theoretical interest is evidence of an independent role of outgroup norms in decision-making for intergroup behavior. A range of research and theory in intergroup relations suggests that outgroup norms are often irrelevant to individuals' decision-making (e.g. Terry & Hogg, 1996; Turner et al., 1989). However, because outgroups' motivations and reactions are targeted in conflict behaviors, salient outgroup norms may motivate deliberate conformity or violation even when ingroup identities are salient. In the present study, outgroup norms independently predicted intentions, and influenced the cost-benefit calculations of ingroup members. Allowing ingroup and outgroup norms to be included in conflict decision-making models may also improve the predictive or explanatory power of intergroup theories.

In both studies, Anglophones perceived conformity to outgroup norms to be beneficial, but the positive relationship of conformity with outgroup norms and group-level expectancy-value processes needs to hold across time or intergroup contexts (see also, Louis & Taylor, 2002; Louis et al., 2005). Future research is required to specify when outgroup norms are considered irrelevant, versus motivating strategic conformity versus strategic norm violation. We may offer several predictions on that score, however. First, when a 'societal' consensus exists, outgroup norms may add nothing to the prediction of behavior once ingroup norms are controlled. For example, if both the ingroup and outgroup favor individuals' voting rather than rioting, outgroup norms are statistically redundant when ingroup norms are controlled. Moreover, where no conflict exists, there is no reason to consider behavioral alternatives and thus no reason to deliberate. Implicitly, a superordinate category and norm govern the behavior via *referent informational influence*.

However, when real differences in group norms exist, the salience of alternatives may engage deliberative processing. Strategic conformity to outgroup norms may be motivated by desires to signal common values, a common superordinate identity, or common goals;

strategic violation may be motivated by attempts to increase the costs of inaction for the outgroup. In the present study, conformity with outgroup Francophone norms was seen as benefiting the group, but future research is needed to tease apart the specific rationales that were important.

Relative group power seems likely to be a factor moderating the relationship between group norms and choices for conformity or norm violation. Research in escalating intergroup violence suggests that perceptions of outgroup power may motivate norm violation because of stronger threat perceptions (e.g. Staub, 2001); however, research in discrimination suggests that threatening outgroup power may sometimes produce appeasement (Ng, 1982). We might predict that low relative power creates stronger contingencies for outgroup norms both for norm violation (the *motivation* for defiance) and conformity (the *costs* of defiance). Similarly, low relative power would presumably weaken both positive and negative contingencies for ingroup norms. Further research may test these hypotheses empirically by manipulating power positions in ad hoc groups, or by measuring the moderating effects of power perceptions on norm-evaluation relationships for real groups such as Anglophones and Francophones.

Finally, outgroup norms may drive attitudes and behavior unstrategically when ingroup members ostentatiously reject the outgroup influence: a phenomenon called 'reactance' (e.g. Brehm, 1966), or 'anticonformity' (Nail, MacDonald, & Levy, 2000). Some research on stigmatized minorities suggests that defensive rejection of outgroup norms should be considered in addition to, or even instead of, positive conformity to the ingroup (e.g. Falomir, Mugny, & Pérez, 2000; in social movement research, e.g. Gurr, 1970; Kaplan & Liu, 2000). However, *reactance* appears to involve an esteem-motivated rejection of the outgroup identity and we speculate that it does not implicate cost-benefit calculations, whereas strategic norm violation in the agentic model would be motivated by expected beneficial consequences to the ingroup and self.

In conclusion, the present studies draw on the larger literature that deals with the dynamic of action and reaction in intergroup conflict. Ingroup and outgroup norms for intergroup behaviors predict cost-benefit analyses that are proposed to mediate the relationship between norms and intentions to engage in conflict choices. The *agentic normative influence* process seems likely to occur commonly in the decision-making of group members in intergroup conflict. Assessment of this process may play a part in understanding the psychological processes that translate dynamics of intergroup action and reaction into individuals' choices among intergroup behaviors. Moreover, analysis of agentic influence processes suggests one means by which 'rational' decision-making is consistent with, and informed by, group-level social influence. In modeling the relationship between cost-benefit analyses and ingroup and outgroup norms, intergroup researchers may begin to address two theoretically and socially important questions: 'How does group identity influence "rational" decision-making?' and 'How do individuals in intergroup conflict choose among inaction, conciliation, and confrontation?'

Notes

1. Thus, as noted in the introduction, the *group norms* here are not descriptive (whether Anglophones and Francophones would behave this way themselves) but rather injunctive and relational (whether Anglophone and Francophone groups approve of the target's behavior). Just as with interpersonal sources (see Ajzen, 1991), ingroup and outgroup members may react positively to behaviors that they are not likely to do themselves, and vice versa.
2. The impact of ingroup norms was not moderated by outgroup norms. Inclusion of the interaction did not increase model fit ($R^2_{\text{change}} = .00$, $F(1, 192) = 2.64$, $p = .106$), nor was the interaction term significant. Alternative models might include identification as an independent predictor (e.g. Kelly, 1993) or as a moderator of the effects of ingroup norms (e.g. Turner et al., 1989) or cost-benefit perceptions (e.g. Terry & Hogg, 1996) on intentions. However, these variables do not increase model fit when group

norms and cost-benefit perceptions are controlled ($F(3, 189) = 0.57, p = .637$), nor are any coefficients significant ($\beta_{id} = .06, p = .394$; $\beta_{idxnorm} = .09, p = .290$; $\beta_{idxcba} = -.07, p = .771$).

3. We thank anonymous reviewers for this suggestion. For a discussion of measures of model fit in structural equation modeling, see e.g. Hu and Bentler (1995). The results in Table 3 suggest that although the alternative models tested are much worse than the present model, it itself has larger than desirable error measures and smaller than desirable adjusted goodness-of-fit (AGFI). Modification indices suggest that the fit would improve to acceptable levels if ingroup and outgroup norm measures were correlated, not modeled as independent. This intercorrelation is also apparent in Table 1, as noted in the discussion.
4. Québec legislation mandated that French predominate on commercial signs and thus bilingual signs in Québec can be subject to fines in some conditions (see Chevrier, 1997).
5. Effect codes (1/−1) and dummy codes (1/0) for categorical variables generate the same R^2 change. However, Aiken and West (1991) suggest that where there are two or more categorical variables that may interact, effect coding is preferable because dummy variables produce correlated contrast vectors for the two 'main effects' and the interaction, whereas with equal n effect codes do not. As in Study 1, however, the interaction of the variables was not significant: the inclusion of the interaction term did not increase the fit of the model ($R^2_{change} = .02, F(3, 82) = 0.93, p = .430$), nor was the coefficient significant.
6. As in Study 1, alternative models with identification as an independent predictor, as a moderator of the effects of ingroup norms and of cost-benefit perceptions on intentions were also considered. Even when group norms and cost-benefit perceptions were controlled, the entry of identification and the interaction terms increased model fit ($F(3, 83) = 4.04, p = .010$). Analysis of the coefficients suggested that participants higher in identification were more likely to engage in the conflict behaviors in all conditions ($\beta_{id} = .23, p = .003$). As in Study 1, however, strongly identified respondents were not more responsive to ingroup norms ($\beta_{idxnorm} = .11, p = .312$) or less influenced by cost-benefit calculations ($\beta_{idxcba} = .04, p = .410$). It should be noted that weak effects of identification, in both Studies 1 and 2, may have occurred because the

identification measures preceded the norm measures or manipulations. As participants subsequently evaluated pro-group behaviors and/or explicitly considered conflicting norms for conflict behavior, the salience of the identity may have changed through the course of the study. Ingroup identity salience and identification have been robustly linked to greater conformity to ingroup norms in previous theory and research (e.g. Terry & Hogg, 1996). Thus, although it is not a focus of the present paper, it would be surprising if moderating effects were not observed with a more powerful test, such as re-running the analyses with post-measures of identity salience.

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